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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,528	06/30/2003	Jeffrey Gullicksen	10.0438	8227

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CLEMENTS WALKER
1901 ROXBOROUGH ROAD
SUITE 300
CHARLOTTE, NC 28211

EXAMINER

LI, SHI K

ART UNIT	PAPER NUMBER
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2613

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/608,528

Applicant(s)

GULLICKSEN ET AL.

Examiner

Shi K. Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 8 and 9 are objected to because of the following informalities: In claim 8, line 6, "connection son" should be "connection on"; in claim 9, line 3, "connection non" should be "connection on". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites limitation "avoiding at least one switching node coupled to the failed span, and creating a shorter optical pathway for a restored network" in lines 18-19 of the claim. The limitation is not described in the specification, as originally filed, in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 8 recites limitation "said controller configuring the egress optical switch node to add the selected channel to the protecting fiber in response to a switch operation on the optical networks, avoiding at least one switching node coupled to the failed span, and creating a shorter

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optical pathway for a restored network" in lines 13-16 of the claim. The limitation is not described in the specification, as originally filed, in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 5-9, 11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arecco et al. (U.S. Patent 7,072,580 B2) in view of Elie-Dit-Cosaque et al. (U.S. Patent Application Pub. 2004/0246892 A1).

Regarding claims 1, 7-9 and 15, Arecco et al. discloses in FIG. 1a, FIG. 1b and FIG. 1c a protection method for an optical network. The optical network includes a plurality of nodes, a plurality of spans including working and protecting fibers. FIG. 1a illustrates the normal operation where traffic between node A and node D is routed through working fibers. FIG. 1b shows a span failure and the nodes, in response to the failed span, reroute traffic between node A and node D through protection fibers. FIG. 1c teaches avoiding node B and node C, which are coupled to the failed span, and creating a shorter optical pathway for a restored network. The difference between Arecco et al. and the claimed invention is that Arecco et al. does not teach a channel assignment database. Elie-Dit-Cosaque et al. teaches in FIG. 3a and FIG. 3b to store channel assignment in a database. One of ordinary skill in the art would have been motivated to

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combine the teaching of Elie-Dit-Cosaque et al. with the optical network of Arecco et al. because a database organizes information, keeps track of channel status and makes such information available when needed. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to keep channel assignment information in a database, as taught by Elie-Dit-Cosaque et al., in the optical network of Arecco et al. because a database organizes information, keeps track of channel status and makes such information available when needed.

Regarding claims 3 and 11, Arecco et al. teaches in col. 3, lines 61 that FIG. 1c uses SDH which is a time division multiplexing system.

Regarding claims 5-6 and 13-14, Arecco et al. teaches in col. 14, line 27 the use of K-bytes for notifying failure. Since K-bytes are line level status, it is line switching operation.

6. Claims 2, 4, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arecco et al. and Elie-Dit-Cosaque et al. as applied to claims 1, 3, 5-9, 11 and 13-15 above, and further in view of Cadeddu et al. (U.S. Patent 5,647,035).

Arecco et al. and Elie-Dit-Cosaque et al. have been discussed above in regard to claims 1, 3, 5-9, 11 and 13-15. Regarding claim 2 and 10, the difference between Arecco et al. and Elie-Dit-Cosaque et al. and the claimed invention is that Arecco et al. refers to ITU G.841 for teaching FIG. 1c. Since ITU G.841 teaches SDH, it may not be clear that FIG. 1c can be extended for wavelength division multiplexed (WDM) optical network. First, Examiner cites Cadeddu et al., which is referred to by Arecco et al., for completeness. Cadeddu et al. teaches in FIG. 4 λ_1 and λ_2 sharing the same fiber, i.e., Cadeddu et al. teaches wavelength division multiplexed optical network. Furthermore, Arecco et al. teaches in col. 2, line 66-col. 3, line 3 that the system of Cadeddu et al. can be generalized to any number of wavelengths. One of

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ordinary skill in the art would have been motivated to combine the teaching of Cadeddu et al. and Arecco et al. with the modified optical network of Arecco et al. and Elie-Dit-Cosaque et al. because WDM allows a plurality of wavelengths to share a fiber and significantly increases the network capacity. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use WDM technique, as taught by Cadeddu et al. and Arecco et al., in modified optical network of Arecco et al. and Elie-Dit-Cosaque et al. because WDM allows a plurality of wavelengths to share a fiber and significantly increases the network capacity.

Regarding claims 4 and 12, the modified system of Arecco et al., Elie-Dit-Cosaque et al. and Cadeddu et al. is a TDM over WDM network.

Response to Arguments

7. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 571 272-3031. The examiner can normally be reached on Monday-Friday (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

skl

14 January 2007



Shi K. Li
Primary Patent Examiner